

AMENDMENTS TO THE CLAIMS

1 1. (Currently amended) An electric drive vehicle comprising:

2 a frame;

3 a **wheel**, having a hub with **at least one hub sprocket**, said wheel rotatably

4 mounted in said frame;

5 an **electric motor**, having a **rotatable assembly** and a **fixed assembly**, said

6 ~~motor mounted fixed assembly attached to said frame by said fixed assembly;~~

7 a **motor sprocket** ~~rotationally locked~~ ~~fixedly mounted~~ to said rotatable assembly

8 of said motor, ~~whereby the motor sprocket rotates with the same angular velocity as the~~

9 ~~rotatable assembly;~~

10 a **drive chain** ~~engaged to connecting~~ said motor sprocket and a ~~said at least one~~

11 ~~hub sprocket on said hub~~ for transferring rotary motion from said motor **sprocket** to said

12 ~~at least one hub sprocket wheel;~~

13 a **pedal crank assembly** rotatably mounted in said frame; and

14 a **single stage, uni-directional, up-speed drive** ~~engaging the rotatable~~

15 ~~assembly of connecting~~ said motor **sprocket** and said pedal crank assembly for

16 transferring rotary motion from said pedal crank to said motor **sprocket**, but not from

17 said motor **sprocket** to said **pedal crank**,

18 whereby said vehicle can be driven either by said pedal crank through said motor

19 **sprocket** or by said motor alone without turning said pedal crank, or by both said pedal

20 crank and said motor in unison.

2. **(Previously amended)** The electric drive vehicle of Claim 1, wherein said vehicle is a bicycle and wherein said hub is a multi-speed hub.

3. **(Previously amended)** The electric drive bicycle of Claim 2, wherein said multi-speed hub has internal gears that can be shifted.

4. **(Previously amended)** The electric drive bicycle of Claim 2, wherein said multi-speed hub has two or more sprockets on a freewheel, and a corresponding derailleur that can shift the chain to engage any of said sprockets.

5. **(Previously amended)** The electric drive vehicle of Claim 1, wherein said electric motor is slow speed and gearless, and wherein said motor is in electrical communication with an electrical power source, whereby said pedal crank can efficiently drive said motor for recharging the electrical power source.

6 - 66 **(Cancelled)**

67. **(New)** The electric drive vehicle of Claim 1, wherein said electric motor is a **hub motor**.

68. (New) The electric drive vehicle of Claim 67, wherein said rotatable assembly is an outer case of the hub motor and the fixed assembly is a hub **motor axle of the hub motor.**

69. (New) The electric drive vehicle of Claim 68, wherein said motor sprocket is attached to said outer case.

70. (New) The electric drive vehicle of Claim 1, wherein said electric motor turns at approximately **260 RPM motor** in a bicycle traveling at 20 miles per hour.

71. (New) The electric drive vehicle of Claim 1, wherein said electric motor is a **gearless motor.**

- 1 72. (New) The electric drive vehicle of Claim 1, wherein said uni-directional drive
- 2 comprises:
 - 3 a **freewheel** connected to said rotatable assembly;
 - 4 a **drive sprocket** attached to the freewheel, wherein a forward rotation is
 - 5 transmittable from the drive sprocket to the rotatable assembly but not from the
 - 6 rotatable assembly to the drive sprocket;
 - 7 a **pedal sprocket** attached to the pedal assembly; and
 - 8 a **pedal chain** connecting the pedal sprocket to the drive sprocket.

1 73. (New) The electric drive vehicle of Claim 1, wherein said uni-directional drive
2 comprises:

3 **a drive sprocket** uni-directionally connected to the said rotatable assembly,
4 wherein a forward rotation is transmittable from the drive sprocket to the rotatable
5 assembly but not from the rotatable assembly to the drive sprocket;
6 **a pedal sprocket** attached to the pedal assembly; and
7 **a pedal chain** connecting the pedal sprocket to the drive sprocket.

74. (New) The electric drive vehicle of Claim 1, wherein said electric motor is mounted to the frame using slots to allow adjustment of tension of the pedal chain.

75. (New) The electric drive vehicle of Claim 1, wherein said motor sprocket is approximately the same size as said at least one hub sprocket.

1 76. (New) The electric drive vehicle of Claim 1, further including:

2 **a second freewheel** rotationally connected to said wheel hub;

3 **a second hub sprocket** attached to the second freewheel, wherein a forward

4 rotation is transmittable from the hub to the second hub sprocket but not from the

5 second hub sprocket to the hub;

6 **a second motor sprocket** rotationally fixed to said rotatable assembly of said

7 motor; and

8 **a third chain** connecting the second hub sprocket and the second motor

9 sprocket,

10 whereby a power supply may be recharged.

1 77. (New) The electric drive vehicle of Claim 1, further including:

2 **a second hub sprocket** uni-directionally connected to the hub, wherein a

3 forward rotation is transmittable from the hub to the second hub sprocket but not from

4 the second hub sprocket to the hub;

5 **a second motor sprocket** rotationally fixed to said rotatable assembly of said

6 motor; and

7 **a third chain** connecting the second hub sprocket and the second motor

8 sprocket,

9 whereby a power supply may be recharged.

1 78. (New) An electric drive vehicle comprising:

2 a frame;

3 a **wheel**, having a **hub** with **at least one hub sprocket**, said wheel rotatably

4 mounted in said frame;

5 an **hub motor** comprising a **motor axle** and an **outer case**, said motor axle

6 fixedly attached to said frame.

7 a **motor sprocket** rotationally fixedly attached to said outer case;

8 a **drive chain** connecting said motor sprocket and said at least one hub sprocket

9 for transferring rotary motion from said motor sprocket to said at least one hub

10 sprocket;

11 a **pedal crank assembly** rotatably mounted in said frame; and

12 a **uni-directional drive** connecting said motor sprocket and said pedal crank

13 assembly for transferring rotary motion from said pedal crank to said motor sprocket,

14 but not from said motor sprocket to said pedal crank,

15 whereby said vehicle can be driven either by said pedal crank through said motor

16 sprocket or by said motor alone without turning said pedal crank, or by both said pedal

17 crank and said motor in unison.

1 79. (New) An electric drive vehicle comprising:

2 a frame;

3 a **wheel**, having a **multi-speed hub** with **at least one hub sprocket**, said wheel

4 rotatably mounted in said frame and said at least one hub sprocket connected to said

5 wheel through a third freewheel wherein forward rotational motion is transmittable from

6 said at least one hub sprocket to said wheel, but not from said wheel to said at least

7 one hub sprocket;

8 an **electric motor**, having a **rotatable assembly** and a **fixed assembly**, said

9 fixed assembly attached to said frame;

10 a **motor sprocket** rotationally fixed to said rotatable assembly of said motor;

11 a **drive chain** connecting said motor sprocket and a said at least one hub

12 sprocket for transferring rotary motion from said motor sprocket to said at least one hub

13 sprocket ;

14 a **pedal crank assembly** rotatably mounted in said frame;

15 a **freewheel** rotationally connected to said rotatable assembly;

16 a **drive sprocket** attached to the freewheel, wherein a forward rotation is

17 transmittable from the drive sprocket to said rotatable assembly but not from said

18 rotatable assembly to said drive sprocket;

19 a **pedal sprocket** attached to said pedal assembly; and

20 a **pedal chain** connecting the pedal sprocket to said drive sprocket,

21 whereby said vehicle can be driven either by said pedal crank through said motor
22 sprocket or by said motor alone without turning said pedal crank, or by both said pedal
23 crank and said motor in unison.

1 80. (New) An electric drive vehicle comprising:

2 a frame;

3 a **wheel**, having a hub with at least one hub sprocket, said wheel rotatably

4 mounted in said frame;

5 an **electric motor which turns at approximately 260 RPM in a bicycle**

6 traveling at 20 miles per hour, the electric motor comprising a **motor axle** and an

7 **outer case**, said motor axle fixedly attached to said frame;

8 a **motor sprocket** attached to said outer case;

9 a **drive chain** connecting said motor sprocket and a **said at least one hub**

10 sprocket for transferring rotary motion from said motor sprocket to said at least one hub

11 sprocket ;

12 a **pedal crank assembly** rotatably mounted in said frame;

13 a **drive sprocket** uni-directionally connected to the outer case, wherein a

14 forward rotation is transmittable from the drive sprocket to said outer case but not from

15 said outer case to said drive sprocket;

16 a **pedal sprocket** attached to said pedal assembly; and

17 a **pedal chain** connecting the pedal sprocket to said drive sprocket,

18 whereby said vehicle can be driven either by said pedal crank through said motor

19 sprocket or by said motor alone without turning said pedal crank, or by both said pedal

20 crank and said motor in unison.

1 81. (New) An electric drive vehicle comprising:

2 a frame;

3 a **wheel**, having a **hub** with **at least one hub sprocket**, said wheel rotatably

4 mounted in said frame;

5 an **hub motor** comprising a **motor axle** and an **outer case**, said motor axle

6 fixedly attached to said frame.

7 a **motor sprocket** rotationally fixedly attached to said outer case;

8 a **drive chain** connecting said motor sprocket and said at least one hub sprocket

9 for transferring rotary motion from said motor sprocket to said at least one hub

10 sprocket;

11 a **pedal crank assembly** rotatably mounted in said frame;

12 a **freewheel** attached to said outer case;

13 a **drive sprocket** attached to the freewheel, wherein a forward rotation is

14 transmittable from the drive sprocket to said rotatable assembly but not from said

15 rotatable assembly to said drive sprocket;

16 a **pedal sprocket** attached to said pedal assembly; and

17 a **pedal chain** connecting the pedal sprocket to said drive sprocket,

18 whereby said vehicle can be driven either by said pedal crank through said motor

19 sprocket or by said motor alone without turning said pedal crank, or by both said pedal

20 crank and said motor in unison.